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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/610,955	07/01/2003	David Myr	MAK-104US	5768
23122	7590	12/06/2010	EXAMINER	
RATNERPRESTIA			VIG, NARESH	
P.O. BOX 980			ART UNIT	PAPER NUMBER
VALLEY FORGE, PA 19482			3629	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/610,955	<b>Applicant(s)</b> MYR, DAVID	
	<b>Examiner</b> NARESH VIG	<b>Art Unit</b> 3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This is in reference to communication received 19 July 201. Addition of Claim 13 is acknowledged. Claims 1 – 13 are pending for examination.

### ***Response to Arguments***

Applicant's arguments and concerns are for amended claims and newly added claim which have been responded to in response to pending claims.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 – 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specification, while being enabling for a human to perform nonlinear programming of a microprocessor for all of the different types of appraisal approaches by adjusting the control variables within

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the corresponding range of influence factor values, does not reasonably provide enablement for microprocessor to perform nonlinear programming of the nonlinear objective function for all of the different types of appraisal approaches by adjusting the control variables within the corresponding range of influence factor values. One of ordinary skill in the art will have to perform undue research and experimentation to use the invention as claimed by the applicant. For example, for the microprocessor to perform nonlinear programming of the nonlinear objective function to simultaneously optimize the nonlinear objective function for all of the different types of appraisal approaches by adjusting the control variables within the corresponding range of influence factor is concealed by the applicant.

Applicant has filed with their response US Publication 2001/0051936 (MICHALEWICZ) as a disclosure for the microprocessor to perform nonlinear programming of the nonlinear objective function. This reference was not disclosed by the applicant when the application was originally filed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robbins US Publication 2001/0039506 in view of Modern Real Estate Practice by Galaty et al. hereinafter known as Galaty and Bradley et al. US Patent 7,711,574.**

Regarding claims 1, 12 and 13, as best understood by examiner, Robbins teaches computer-implemented system and method for appraising a real estate property. Robbins does not explicitly recite using all three sales comparison approach, an income capitalization approach and a cost approach as different types of appraisal approaches. However, Robbins teaches that in determining the market value of a subject property an appraiser generally considers three separate approaches to value; the Cost Approach, the Income Approach, and the Sales Comparison Approach [Robbins, 0080]. Galaty teaches that appraisers use three basic valuation techniques: the sales comparison approach, the cost approach and the income approach as checks against each other for narrowing the range within which the final estimate of value falls [Galaty, page 304, last paragraph].

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Robbins with teachings of Galaty and generate appraisal using sales comparison approach, the cost approach and the income approach to make the appraisal more useful by checking valuations from different approaches against each other for narrowing the range within which the final estimate of value falls, apply a known technique to a known device (method, or product) ready for improvement to yield predictable results, known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art.

Even though, Robbins in view of Galaty does not teach what formula(e) it uses to to determine appraised value of a real estate, however, it is obvious that Robbins in view of Galaty uses some formula(e) to calculate appraised value of a real estate. Bradley teaches system and method for calculating appraised valued of property using nonlinear functions and plurality of influence factors [Bradley, col. 16].

Therefore, at the time of invention, it would have been obvious to one of ordinary skill in the art to modify Robbins in view of Galaty by adopting teachings of Bradley and use nonlinear functions to prevent reappraisal of property by generating reliable appraisals; apply a known technique to a known device (method, or product) ready for improvement to yield predictable results; known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design

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incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art.

Robbins in view of Galaty and Bradley teaches a computer based value appraising system with concept and capability for:

automatically computing from data received by a computer-based value appraising system an optimal appraisal value of a real estate property, where all of different types of appraisal approaches are used together to optimize a nonlinear objective function [Robbins, 0080; Galaty, page 304, last paragraph; Bradley, col. 16]

storing influence factors and a range of influence factor values for each of the different types of appraisal approaches [Galaty, page 313; Robbins, [0032], claim 56; Bradley, col. 11, Table 2]

defining the nonlinear objective function that includes control variables representing the stored influence factors for all of the different types of appraisal approaches [Bradley, col. 16];

using and causing a microprocessor to perform nonlinear programming of the nonlinear objective function to simultaneously optimize the nonlinear objective function for all of the different types of appraisal approaches by adjusting the control variables within the corresponding range of influence factor values (**a human initiates the application on a microprocessor and enters data**) [Bradley, col. 16]; and

determining, by the computer-based value appraising system, an optimal range of appraisal values for the real estate property from the optimized nonlinear objective function according to each of the different types of appraisal approaches (Using

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teachings of Galatay, calculates the appraisal value) [Robbins, in view of Galatay, page 305-313 Bradley, col. 16],

outputting the optimal appraisal value to the user based on the optimal range of appraisal values [Robbins, Bradley]

an output for providing signals indicative of the optimal range of appraisal values for the real estate property [Robbins, Bradley],

where all of the different types of appraisal approaches are used together to optimize the nonlinear objective function [Robbins in view of Galatay], and all of the different types of appraisal approaches can be used together to optimize the nonlinear objective function.

Regarding claim 2, as best understood by examiner, Robbins in view of Galatay and Bradley teaches capability for optimizing the stored range of influence factors values of each of the different types of appraisal approaches.

Regarding claim 3, as best understood by examiner, Robbins in view of Galatay and Bradley teaches capability for eliminating all discrepancies or outliers of the stored influence factors.

Regarding claim 4, as best understood by examiner, Robbins in view of Galatay and Bradley teaches capability for obtaining a respective optimal range of appraisal values for each of the different types of appraisal approaches.



Regarding claim 5, as best understood by examiner, Robbins in view of Galaty and Bradley teaches capability for performing a feasibility study to determine whether the optimal range of appraisal values meets predetermined economic return requirements for the real estate property.

Regarding claim 6, as best understood by examiner, Robbins in view of Galaty and Bradley teaches capability for performing a sensitivity analysis using the stored influenced factors for each of the different types of appraisal approaches together to determine a sensitivity of the optimal range of appraisal values to changes in each of the stored influence factors.

Regarding claim 7, as best understood by examiner, Robbins in view of Galaty and Bradley teaches capability to reconcile the optimal ranges of appraisal values for each of the different types of appraisal approaches.

Regarding claim 8, as best understood by examiner, Robbins in view of Galaty and Bradley teaches capability to search for combinations of the stored influenced factors that automatically produce a same optimal value as for the influence factors stored individually

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Regarding claim 9, as best understood by examiner, Robbins in view of Galaty and Bradley teaches capability for performing a highest and best use analysis to determine a financial feasibility criteria for each separate use;

Regarding claim 10, as best understood by examiner, Robbins in view of Galaty and Bradley teaches capability wherein the nonlinear objective function uses project periods that are considered in one of the different types of appraisal approaches

Regarding claim 11, as best understood by examiner, Robbins in view of Galaty and Bradley teaches capability for calculating different capitalization rates that are considered in one of the different types of appraisal approaches.

**Claims 1 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robbins US Publication 2001/0039506 in view of Modern Real Estate Practice by Galaty et al. hereinafter known as Galaty, Bradley et al. US Patent 7,711,574 and Michalewics US Publication 2001/0051936.**

Regarding claims 1, 12 and 13, as best understood by examiner, Robbins teaches computer-implemented system and method for appraising a real estate property. Robbins does not explicitly recite using all three sales comparison approach, an income capitalization approach and a cost approach as different types of appraisal

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approaches. However, Robbins teaches that in determining the market value of a subject property an appraiser generally considers three separate approaches to value; the Cost Approach, the Income Approach, and the Sales Comparison Approach [Robbins, 0080]. Galaty teaches that appraisers use three basic valuation techniques: the sales comparison approach, the cost approach and the income approach as checks against each other for narrowing the range within which the final estimate of value falls [Galaty, page 304, last paragraph].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Robbins with teachings of Galaty and generate appraisal using sales comparison approach, the cost approach and the income approach to make the appraisal more useful by checking valuations from different approaches against each other for narrowing the range within which the final estimate of value falls, apply a known technique to a known device (method, or product) ready for improvement to yield predictable results, known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art.

Even though, Robbins in view of Galaty does not teach what formula(e) it uses to to determine appraised value of a real estate, however, it is obvious that Robbins in view of Galaty uses some formula(e) to calculate appraised value of a real estate. Bradley teaches system and method for calculating appraised valued of property using nonlinear functions and plurality of influence factors [Bradley, col. 16].

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Therefore, at the time of invention, it would have been obvious to one of ordinary skill in the art to modify Robbins in view of Galaty by adopting teachings of Bradley and use nonlinear functions to prevent reappraisal of property by generating reliable appraisals; apply a known technique to a known device (method, or product) ready for improvement to yield predictable results; known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art.

Even though, Robbins in view of Galaty and Bradley does not explicitly recite causing a microprocessor to perform nonlinear programming of the nonlinear objective function to simultaneously optimize the nonlinear objective function for all of the different types of appraisal approaches by adjusting the control variables within the corresponding range of influence factor values, as explained by applicant in their response, Michalewicz teaches capability and concept for causing a microprocessor to perform nonlinear programming of the nonlinear objective function to simultaneously optimize the nonlinear objective function for all of the different types of appraisal approaches by adjusting the control variables within the corresponding range of influence factor values.

Therefore, at the time of invention, it would have been obvious to one of ordinary skill in the art to modify Robbins in view of Galaty and Bradley by adopting teachings of Michalewicz to apply a known technique to a known device (method, or product) ready for improvement to yield predictable results; known work in one field of endeavor may

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prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art.

Robbins in view of Galaty, Bradley and Michalewicz teaches a computer based value appraising system with concept and capability for:

automatically computing from data received by a computer-based value appraising system an optimal appraisal value of a real estate property, where all of different types of appraisal approaches are used together to optimize a nonlinear objective function [Robbins, 0080; Galaty, page 304, last paragraph; Bradley, col. 16]

storing influence factors and a range of influence factor values for each of the different types of appraisal approaches [Galaty, page 313; Robbins, [0032], claim 56; Bradley, col. 11, Table 2]

defining the nonlinear objective function that includes control variables representing the stored influence factors for all of the different types of appraisal approaches [Bradley, col. 16];

using and causing a microprocessor to perform nonlinear programming of the nonlinear objective function to simultaneously optimize the nonlinear objective function for all of the different types of appraisal approaches by adjusting the control variables within the corresponding range of influence factor values (**a human initiates the application on a microprocessor and enters data**) [Bradley, col. 16, Michalewicz (as explained by the applicant in the response received 11 October 2010); and

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determining, by the computer-based value appraising system, an optimal range of appraisal values for the real estate property from the optimized nonlinear objective function according to each of the different types of appraisal approaches (Using teachings of Galatay, calculates the appraisal value) [Robbins, in view of Galaty, page 305-313 Bradley, col. 16],

outputting the optimal appraisal value to the user based on the optimal range of appraisal values [Robbins, Bradley]

an output for providing signals indicative of the optimal range of appraisal values for the real estate property [Robbins, Bradley],

where all of the different types of appraisal approaches are used together to optimize the nonlinear objective function [Robbins in view of Galaty], and all of the different types of appraisal approaches can be used together to optimize the nonlinear objective function.

***Conclusion***

Applicant is required under 37 CRF '1.111 (c) to consider the references fully when responding to this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NARESH VIG whose telephone number is (571)272-6810. The examiner can normally be reached on Mon-Thu 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jamisue Plucinski can be reached on (571) 272-6811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 4, 2010

/Naresh Vig/  
Primary Examiner, Art Unit 3629